

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-51. (cancelled)

52. (currently amended) A stent comprising:

a plurality of first circumferential bands containing a pattern of loops at a first frequency having members of a first width;

~~a plurality of second circumferential bands containing a pattern of loops at a second frequency higher than said first frequency, each second band alternating with each said first circumferential bands and periodically coupled thereto to form cells such that said first circumferential bands are joined together through second circumferential bands without other connection directly between said first circumferential bands,~~

wherein the first circumferential bands containing a pattern of loops are comprised of comprise even first circumferential bands containing a pattern of loops, and odd first circumferential bands containing a pattern of loops which are out of phase with the loops of the even first circumferential bands, an odd first circumferential bands band occurring between every two even first circumferential bands wherein each cell includes two cycles of one of said plurality of first circumferential bands and three cycles of one of said plurality of second circumferential bands and the first, and second circumferential bands each form single continuous sinusoidal bands; and

a plurality of loop containing flexible connectors connecting adjacent even and odd circumferential bands and having members of a second width that is narrower than the first width,

the flexible connectors and even and odd circumferential bands forming cells having a non-uniform pattern of cells, wherein at least one cell is larger in size than other cells of the stent.

53. (cancelled)

54. (currently amended) A stent comprising:

a plurality of first circumferential bands containing a pattern of loops and having members of a first width at a first frequency;

~~a plurality of second circumferential bands containing a pattern of loops at a second frequency higher than said first frequency, alternating with each said first circumferential bands and periodically coupled thereto to form cells such that each said first circumferential bands is joined together through said second circumferential bands without other connection directly between said first circumferential bands,~~

wherein the first circumferential bands containing a pattern of loops are comprised of comprise even first circumferential bands containing a pattern of loops; and odd first circumferential bands containing a pattern of loops, an odd first circumferential band occurring between every two even first circumferential bands wherein each cell includes two cycles of one of said plurality of first circumferential bands and three cycles of one of said plurality of second circumferential bands and the first, and second circumferential bands each form single continuous sinusoidal bands; and

a plurality of loop containing flexible connectors connecting adjacent even and odd circumferential bands and having members of a second width that is narrower than the first width;

said flexible connectors and even and odd circumferential bands form cells wherein even and odd circumferential members are connected exclusively by said flexible connectors, and at least one of said cells is larger than other cells of the stent.

55. (currently amended) A stent comprising:

a first loop containing section, the first loop containing section arranged generally in the circumferential direction, the loops in said first loop containing section occurring at a first frequency;

a second loop containing section, the second loop containing section arranged generally in the circumferential direction, the loops in said second loop containing section also occurring at said first frequency; and

a third loop containing section, the loops in said third loop containing section occurring at a second frequency that is higher than said first frequency, the third loop containing section disposed in the generally circumferential space between said first and second loop containing sections such that each said first and second loop containing sections are joined together through the third loop containing section without other connection directly between the first and second loop containing sections wherein the first and second loop containing sections have two cycles for every three cycles of said first loop containing section wherein the third loop containing section has a plurality of loops between connections to the first and second loop containing sections;

wherein the first, second and third loop containing sections have struts and the struts of the first and second loop containing sections are wider than the struts of the third loop containing section [[and]]; the first[[.]] and second, and third loop containing sections each form single continuous sinusoidal bands; and the third loop containing sections form generally sinusoidal bands, wherein at least one of said third loop containing sections forms a non-continuous band.

56. (currently amended) A stent comprising:

a plurality of first continuous circumferential bands containing a pattern of loops at a first frequency;

~~a plurality of second circumferential bands containing a pattern of loops at a second frequency higher than said first frequency, alternating with each said first circumferential bands and periodically joined together through said second circumferential bands without other connection directly between said first circumferential bands,~~

wherein the first circumferential bands containing a pattern of loops are comprised of comprise even first circumferential bands containing a pattern of loops; and odd first circumferential bands containing a pattern of loops which are out of phase with the loops of the even first circumferential bands, an odd first circumferential band occurring between every two even first circumferential bands wherein each cell includes two cycles of one of said first circumferential bands and three cycles of one of said plurality of second circumferential bands; and

a plurality of loop containing flexible connectors connecting adjacent even and odd circumferential bands;

wherein the even and odd circumferential bands and flexible connectors form cells such that the even and odd circumferential bands are exclusively connected by the flexible connectors, the first, and second even and odd circumferential bands and flexible connectors have struts and the struts of the first even and odd circumferential bands are wider than the struts of the flexible connectors second circumferential bands, and the first, and second circumferential bands each form single continuous sinusoidal bands, and at least one of said cells is larger than said other cells.

57. (new) A non-uniform multicellular stent comprising:

a plurality of circumferential bands containing a pattern of loops having members at a first width;

wherein the circumferential bands containing a pattern of loops are comprised of even circumferential bands containing a pattern of loops, and odd circumferential bands containing a pattern of loops which are out of phase with the loops of the even circumferential bands, an odd circumferential band occurring between every two even circumferential bands and the even and odd circumferential bands each form single continuous sinusoidal bands; and

a plurality of loop containing flexible connectors connecting adjacent even and odd circumferential bands, said connectors having members of a second width that is narrower than the first width;

the flexible connectors and adjacent even and odd circumferential bands form cells, wherein a square cell is arranged amongst a plurality of triangular cells.

58. (new) A stent according to claim 57 wherein the square cell is formed by two in phase flexible connectors connecting adjacent even and odd circumferential bands.

59. (new) A stent according to claim 58 wherein one circumferential band forming the square cell has the same number of loops as the adjacent circumferential band in the same cell.

60. (new) A stent according to claim 57 wherein the square cell is formed by two out of phase flexible connectors connecting adjacent even and odd circumferential bands.

61. (new) A stent according to claim 60 wherein one circumferential band forming the square cell has more loops than the adjacent circumferential band in the same cell.

62. (new) A stent according to claim 55 wherein the first, second and third loop containing sections form cells.

63. (new) A stent according to claim 62 wherein at least one cell is larger than the other cells.